

## AMENDMENTS TO THE CLAIMS

1. (Previously Presented) A method comprising:  
registering a performance monitoring driver with a real time operating system (RTOS) of an input/output (I/O) processor, wherein the performance monitoring driver is coupled to a performance monitoring unit (PMU);  
selecting events within the I/O processor to gather data on;  
sending the selected events as a message request from a host processor to the RTOS of the I/O processor; and  
translating the message request into parameters that are accessible by the RTOS.
2. (Previously Presented) The method of claim 1, further comprising:  
sending the message request as a translated request to the PMU.
3. (Previously Presented) The method of claim 1, further comprising:  
initiating a performance monitor application that generates a selection screen on a display coupled to the I/O processor through the host processor,  
wherein selecting events within the I/O processor on which to gather data includes selecting the events on the selection screen.
4. (Cancelled).
5. (Previously Presented) The method of claim 1, wherein sending the selected events as a message request to the real time operating system includes sending the message request through an operating system specific module of the host processor.
6. (Original) The method of claim 1, wherein sending the translated request to the performance monitoring unit includes sending the translated request through the performance monitoring driver.
7. (Previously Presented) The method of claim 1, wherein the parameters includes at least one of (i) control parameters for hardware-based performance monitoring resources, (ii) mode-specific control parameters for a performance monitoring resource, and (iii) data parameters for at least one mode in one counter.
8. (Previously Presented) The method of claim 7, wherein the parameters includes at least one of the following parameters: an adjusted sample, a control, a counter, a current mode, a current time, an ending time, an interval, a lock control, a maximum algorithm, a maximum mode, a minimum

sample interval, a minimum sample unit, a mode control, a number counter, type of performance monitoring hardware available, a sample interval, a sigma time, and a status.

9. (Previously Presented) The method of claim 1, further comprising:  
generating performance monitoring storage tables within a memory of the I/O processor.

10. (Previously Presented) The method of claim 33, further comprising:  
subsequent to returning the data requested by the translated request to the performance monitoring driver, sending the data to the performance monitoring storage tables.

11. (Previously Presented) The method of claim 33, wherein sending the data to a location specified in the message request further includes sending the data at a time period specified in the message request.

12-14 (Cancelled)

15. (Previously Presented) The method of claim 11 further comprising:  
generating a message that causes a fan internal to the host system to turn on in response to the pieces of data returned from the performance monitoring unit.

16-21 (Cancelled)

22. (Previously Presented) A machine readable medium having instructions stored thereon that when executed by a processor cause a system to:

register a performance monitoring driver as a private driver with a real time operating system (RTOS) of an input/output (I/O) processor, wherein the performance monitoring driver is coupled to a performance monitoring unit (PMU);

select events within the I/O processor to gather data on;

send the selected events as a message request from a host processor to the RTOS of the I/O processor; and

translate the message request into parameters based on a set of private group parameters that are accessible by the RTOS.

23. (Previously Presented) The machine readable medium of claim 22, further comprising instructions that when executed cause the system to:

send the message request as a translated request to the PMU;

return the pieces of data requested by the translated request to the performance monitoring driver; and

send the pieces of data to a location specified in the message request.

24. (Previously Presented) The machine readable medium of claim 22, further comprising instructions that when executed cause the system to:
- initiate a performance monitor application that generates a selection screen on a display coupled to the I/O processor through the host processor,
  - wherein selecting events within the I/O processor on which to gather data includes selecting the events on the selection screen.
25. (Previously Presented) The machine readable medium of claim 22, wherein sending the selected events as a message request to the real time operating system includes sending the message request through an operating system specific module of the host processor.
26. (Previously Presented) The machine readable medium of claim 22, wherein sending the translated request to the performance monitoring unit includes sending the translated request through the performance monitoring driver.
27. (Previously Presented) The machine readable medium of claim 22, wherein the set of private group parameters includes at least one of (i) control parameters for hardware-based performance monitoring resources, (ii) mode-specific control parameters for a performance monitoring resource, and (iii) data parameters for at least one mode in one counter.
28. (Previously Presented) The machine readable medium of claim 27, wherein the set of private group parameters includes at least one of the following parameters: an adjusted sample, a control, a counter, a current mode, a current time, an ending time, an interval, a lock control, a maximum algorithm, a maximum mode, a minimum sample interval, a lock control, a maximum algorithm, a maximum mode, a minimum sample interval, a minimum sample unit, a mode control, a number counter, type of performance monitoring hardware available, a sample interval, a sigma time, and a status.
29. (Previously Presented) The machine readable medium of claim 22, further comprising instructions that when executed cause the system to:
- generate performance monitoring storage tables within memory of the I/O processor.
30. (Previously Presented) The machine readable medium of claim 29, further comprising instructions that when executed cause the system to:
- send the pieces of data to the performance monitoring storage tables.

31. (Previously Presented) The machine readable medium of claim 23, wherein sending the pieces of data to a location specified in the message request further includes sending the pieces of data at a time period specified in the message request.
32. (Previously Presented) The machine readable medium of claim 31, further comprising instructions that when executed cause the system to:  
generate a message that causes a fan internal to the host system to turn on in response to the pieces of data returned from the performance monitoring unit.
33. (Previously Presented) A method comprising:  
sending requested data from a performance monitoring unit to a performance monitoring driver that is registered with a real time operating system (RTOS) on an input/output processor (IOP); and  
sending a message with the data from the RTOS to a host processor.
34. (Previously Presented) A method according to claim 33 further comprising:  
returning data received in the message to a performance monitor application.
35. (Previously Presented) The method according to claim 33 wherein sending the message to the host processor includes sending the message through an operating system specific module.
36. (Previously Presented) The method according to claim 33 further comprising:  
generating performance monitoring storage tables within memory of the I/O processor.
37. (Previously Presented) An apparatus comprising:  
a performance monitoring unit (PMU);  
an I/O processor coupled to the PMU, the I/O processor to run a real-time operating system (RTOS)  
wherein the RTOS registers at least one performance monitoring driver;  
wherein the RTOS translates message requests into parameters.
38. (Previously Presented) An apparatus according to claim 37, wherein the RTOS sends a translation request to the performance monitoring driver.
39. (Previously Presented) An apparatus according to claim 37 further including:  
a storage device to store tables for collecting requested data.
40. (Previously Presented) A system comprising:  
a host processor;

an input/output processor coupled to the host processor;  
the I/O processor to run a real time operating system (RTOS), the RTOS to register a performance monitoring driver; and  
a performance monitoring circuit (PMU) coupled to the I/O processor.

41. (Previously Presented) The system of claim 40, wherein the host processor runs a performance monitoring application to request data from the PMU.

42. (Previously Presented) The system of claim 40, wherein the host processor runs an operating system specific module to send platform independent messages to the I/O processor.